Amendment to the claims:

Please replace the claims with the listing of claims below.

1. (withdrawn) An isolated Sml1 protein or a homologue thereof.

2. (withdrawn) The protein of claim 1, wherein the protein has the amino acid sequence shown in Figure 1C (Seq ID No. 1).

3. (withdrawn) The protein of claim 1, wherein the homologue is a human Sml1 protein, a rat Sml1 protein, a mouse Sml1 protein, a microbial Sml1 protein, a plant Sml1 protein, or an insect Sml1 protein.

4. (withdrawn) An isolated nucleic acid encoding the protein of claim 1.

5. (withdrawn) An isolated nucleic acid which encodes the protein of claim 3.

6. (withdrawn) A nucleic acid having the nucleotide sequence shown in Figure 1C.

7. (withdrawn) The nucleic acid of claim 6, wherein the nucleic acid has the nucleotide sequence which encodes the amino acid sequence shown in Figure 1C from 1 to 104.

8. (withdrawn) A vector comprising the nucleic acid of claim 4, 5, 6 or 7.

9. (withdrawn) The vector of claim 8, wherein the vector is a virus, a plasmid, a phage or an expression vector.

10. (withdrawn) A host cell comprising the vector of claim 8.

11. (withdrawn) A nucleic acid molecule which comprises an antisense sequence of at least a portion of the nucleic acid sequence of claim 4, 5, 6 or 7.

12. (withdrawn) An antibody which specifically recognizes the protein of claim 1, 2 or 3.

13. (withdrawn) The antibody of claim 12, wherein the antibody is a polyclonal or monoclonal antibody.

14. (currently amended) A screening assay for identifying a compound that is capable of reducing the division rate of a cell which comprises:

(a) contacting the cell with a compound determined to mimic the binding of Sml1 protein to the large subunit of ribonucleotide reductase (Rnr1), which Sml1 protein comprises amino acids having the amino acid sequence set forth in SEQ ID NO: 2, ~~or a homologue thereof,~~ and

(b) comparing the division rate of the cell in step (a) with the division rate of the cell in the absence of the compound so as to determine whether the compound reduces the division rate of the cell, thereby identifying a compound capable of reducing the division rate of the cell.

15. (previously presented) The screening assay of claim 14, wherein the compound is an organic compound, an inorganic

compound, a lipid, a peptidomimetic, a fragment of Sml1 protein or a synthetic compound.

16. (cancelled)

17. (previously presented) The screening assay of claim 15, wherein the fragment is from about 20 amino acids to about 90 amino acids in length.

18. (original) The screening assay of claim 14, wherein the cell is a yeast cell, a mammalian cell, a plant cell, an insect cell or a microbe.

19. (original) The screening assay of claim 18, wherein the mammalian cell is a human cell, a hamster cell, a mouse cell, a rat cell or a monkey cell.

20. (cancelled)

21. (currently amended) A pharmaceutical composition which comprises ~~the compound~~ a fragment of Sml1 protein identified by the screening assay of claim 14 and a carrier, wherein the Sml1 protein comprises amino acids having the amino acid sequence set forth in SEQ ID NO:2.

22. (original) The pharmaceutical composition of claim 21, wherein the carrier is an aerosol, topical, intravenous or oral carrier, or a subcutaneous implant.

23. (original) The pharmaceutical composition of claim 22, wherein the implant is a time release implant.

24. (withdrawn) A method for inhibiting cell division which

comprises contacting a cell with a compound identified by the screening assay of claim 14.

25. (withdrawn) A method for inhibiting cell division in a subject which comprises administering to the subject an amount of the compound identified by the screening assay of claim 14.

26. (withdrawn) The method of claim 25, wherein the subject is suffering from increased cell division.

27. (withdrawn) The method of claim 25, wherein the subject is suffering from cancer or a microbial infection.

28. (withdrawn) The method of claim 25, wherein the subject is suffering from ataxia telangiectasia.

29. (withdrawn) A method for treating cancer in a cancer patient which comprises administering to the patient an amount of a compound effective to increase an interaction between a ribonucleotide reductase protein and an Sml1 protein in cancer cells of the patient, thereby reducing cell division rate of the cancer cells in the patient and treating the cancer.

30. (withdrawn) A method for treating a microbial infection in a patient which comprises administering to the patient an amount of a compound effective to increase an interaction between a ribonucleotide reductase protein and an sml1 protein in the microbe, thereby reducing the division rate of the microbe in the patient and treating the microbial infection.

31. (withdrawn) The method of claim 29 or 30, wherein the compound is a compound which was identified by the screening assay of claim 14.

32. (withdrawn) The method of claim 29 or 30, wherein the compound is delivered to the patient via a carrier.

33. (withdrawn) The method of claim 31, wherein the carrier is an aerosol, topical, intravenous or oral carrier, or a subcutaneous implant.

34. (withdrawn) The method of claim 32, wherein the implant is a time release implant.

35. (withdrawn) The method of claim 29 or 30, wherein the compound is an Sml1 polypeptide or a variant thereof.

36. (withdrawn) The method of claim 29 or 30, wherein the compound is a yeast Sml1 protein and the cancer cells of the patient do not express endogenous Sml1 protein.